

Remarks

Claims 1-9 and 11-21 were pending.

Claims 1, 2, 4, 9, 12 20 and 21 are amended.

Claims 3 and 8 are original.

Claims 5-7, 11 and 14-19 are as previously presented.

Claim 13 is cancelled.

The application now contains claims 1-9, 11, 12 and 14-21.

Claims 1, 2 and 9 are amended to more clearly focus on certain embodiments of Applicants invention by deleting the term “ $0.70 \leq y \leq 1.80$ ” and inserting in its stead the term “ $1.1 \leq y \leq 1.8$ ”. Support is found in the original claims.

Claim 1 is further amended by inserting the term “dielectric” into the last line immediately prior to “material”. Support is found on page 3, line 35 of the Specification.

In light of the amendments to claim 2, claim 13 is cancelled as being redundant.

Claim 4 is amended for clarity and to provide more appropriate antecedence by rewriting the phrase “the metal oxide of high refractive index” as “the dielectric material having a high index of refraction is a metal oxide and”. Support is found in amended claim 1 and original claims 1 and 4.

Claim 12 is amended to reflect the amendments to parent claim 1 by deleting the now redundant term “ $1.1 \leq y \leq 1.8$ ” and by inserting the term “dielectric” immediately prior to the word “material”.

Claim 20 is amended to delete the now redundant term “ $1.1 \leq y \leq 1.8$ ” and to delete the redundant word “and”. Claim 21 is amended to delete the redundant word “pigment”.

No new matter is added.

Claim Objections

Claim 20 is objected to for the redundant occurrence of the word "and"; Claim 21 is objected to for the redundant occurrence of the word "pigment". Applicants have deleted the redundant words.

In light of the amendments above, Applicants respectfully submit that the objections are addressed and overcome and kindly ask that they be withdrawn.

Claim Rejections

Claims 1-6, 9 and 11-21 are rejected under 35 USC 102(e) as being anticipated by Phillips et.al., US 6,569,529 which discloses a layered, color shifting pigment flake, comprising a reflector layer, a first dielectric layer over each of the top and bottom surfaces of the reflector layer and a titanium-containing absorber layer substantially surrounding the first and second dielectric layers and in contact with the at least one side surface of the reflector layer. Physical dimensions disclosed for the pigment particle and layers in US 6,569,529 overlap with physical dimensions of the instant claims.

Applicants respectfully traverse the rejections.

The Examiner has detailed specific instances where certain instant claims are believed to be anticipated by the cited art. Applicants believe there are two aspects common to all claims 1-6, 9 and 11-21 that place them outside the cited art.

Applicants respectfully note that the pigments of 6,569,529 have a reflective core as indicated in the abstract and claims as well as throughout the specification. The pigments of the instant invention have a core consisting of SiO_y which is not reflective but transparent or semitransparent.

US 6,569,529 also discloses layers of a pigment that can be comprised of silicon oxides. In order to focus more directly on specific embodiments of the invention, Applicants have amended claims 1, 2 and 9 to relate pigments with a core consisting of SiO_y wherein $1.1 \leq y \leq 1.8$.

The silicon oxides of US 6,569,529 are defined in column 7, line 54-65 as one of

"several of the above-listed dielectric materials are typically present in non-stoichiometric forms, often depending upon the specific method used to deposit the dielectric material as a coating layer, and that the above-listed compound names indicate the approximate stoichiometry. For example, silicon monoxide and silicon dioxide have nominal 1:1 and 1:2 silicon:oxygen ratios, respectively, but the actual silicon:oxygen ratio of a particular dielectric coating layer varies somewhat from these nominal values".

Applicants respectfully submit that the dielectric material of US 6,569,529 is, for example, predominately SiO_1 or SiO_2 , but not a SiO_y with $1.0 < y < 2.0$, e.g., a SiO_y with $1.1 \leq y \leq 1.8$ as in the instant invention.

Accordingly, Applicants respectfully aver that while US 6,569,529 might teach a pigment comprising a substrate of SiO_1 and SiO_2 , it does not teach a pigment comprising a substrate of SiO_y with $1.1 \leq y \leq 1.8$, in particular, US 6,569,529 does not teach a pigment comprising a core of SiO_y with $1.1 \leq y \leq 1.8$.

Applicants respectfully submit that no anticipation can be said to exist regarding US 6,569,529 and the instant invention in that the pigments of the cited art have a reflective core and do not comprise the silicon suboxides of the presently amended claims, i.e., SiO_y with $1.1 \leq y \leq 1.8$.

Applicants therefore submit that rejections of claims 1-6, 9 and 11-21 under 35 USC 102(e) as being anticipated by Phillips et.al., US 6,569,529 are addressed and overcome and kindly ask that the Examiner withdraw the rejections and find claims 1-6, 9 and 11-21 allowable.

Claim 7 is rejected under 35 USC 103(a) over Phillips et.al., US 6,569,529 in view of Vogt et.al., US 6,238,471. Claim 8 is rejected under 35 USC 103(a) over Phillips et.al., US 6,569,529 in view of Schmid et.al., US 5,624,468.

Applicants respectfully traverse the rejections.

While similarities may exist between the process of instant claim 7 and US 6,238,471, and between instant claim 8 and US 5,624,468, Applicants respectfully suggest that, as discussed above, the pigments of the instant invention having a transparent or (semi)transparent core of SiO_y with $1.1 \leq y \leq 1.8$ are novel over Phillips et.al., US 6,569,529. Adapting portions of the art as found in US 6,238,471 and US 5,624,468 in order to find a process to prepare the previously unanticipated pigments of the instant invent invention is itself a novel and non-obvious invention.

Applicants therefore suggest that the combined art in each of the 103(a) rejections fails to meet the limitations of claims and kindly ask that the Examiner withdraw the rejections and find claims 7 and 8, along with the previously discussed claims 1-6, 9 and 11-21, allowable.

In the event that minor amendments will further prosecution, Applicants request that the Examiner contact the undersigned representative.

Respectfully submitted,



Joseph C. Suhadolnik
Agent for Applicants
Reg. No. 56,880
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Ciba Specialty Chemicals Corporation
Patent Department
540 White Plains Road
P.O. Box 2005
Tarrytown, NY 10591-9005
Tel. (914) 785-2973
Fax (914) 785-7102